

— However, the segments may have uniform width, be contiguous and/or be evenly separated in wavelength space. —

In the Claims:

Please amend claims 1, 2, and 9-12 as follows:

1. (Amended) A method of performing spectral analysis, said method comprising:
obtaining an optical spectrum, and
normalizing said optical spectrum by application of non-uniform segment normalization.
2. (Amended) The method of claim 1, wherein said normalizing further comprises:
selecting one or more segments from said optical spectrum, each of said segments being bounded by an upper wavelength and a lower wavelength and containing one or more wavelengths, each of said wavelengths having an associated amplitude,
determining an area under a curve associated with each particular segment, wherein each said curve is bounded along a first axis by said upper wavelength and said lower wavelength of said particular segment, and along a second axis by said amplitudes associated with each of said wavelengths included in said particular segment,
summing said areas for each of said segments to determine a normalization factor, and
dividing at least one said associated amplitude for one of said wavelengths included in said segments by said normalization factor.
9. (Amended) The method of claim 1 further comprising obtaining said spectrum from a specimen of human cervical tissue.

10. (Amended) The method of claim 1 further comprising determining a disease status of said test specimen by analyzing said optical spectrum subsequent to said normalizing.

11. (Amended) A system for performing spectral analysis comprising:
a spectrographic device, adapted to obtain an optical spectrum from a test specimen, and
a processor adapted to normalize said optical spectrum by application of non-uniform segment normalization.

12. (Amended) The system of claim 11, further comprising machine readable instructions - executing on said processor and adapted to:

select one or more segments from said optical spectrum, each of said segments being bounded by an upper wavelength and a lower wavelength, and containing one or more wavelengths, each of said wavelengths having an associated amplitude,

determine an area under a curve associated with each particular one of said segments, wherein each said curve is bounded along a first axis by said upper wavelength and said lower wavelength of said particular segment, and along a second axis by said amplitudes associated with each of said wavelengths included in said particular segment,

sum said areas for each of said segments to determine a normalization factor, and

divide at least one said associated amplitude for one of said wavelengths included in said segments by said normalization factor.

BASIS FOR AMENDMENTS

Applicants have amended the specification on page 1, first paragraph, lines 1 through line 7 to specify the application numbers corresponding to related applications.